

IN THE CLAIMS:

Please amend claims 1-3 and 6 as follows:

1. (Amended) An optical disk recording apparatus for recording information onto an optical disk having a wobbled recording track by irradiation of a recording light beam having power modulated in accordance with a recording signal, said optical disk recording apparatus comprising a push-pull signal processing circuit including:

a push-pull signal generation circuit arranged to generate a push-pull signal based on a reflected-light detection signal representative of a reflection of the recording light beam off the optical disk; and

a gain variation circuit arranged to vary gain of either the reflected-light detection signal in response to modulation of the recording light beam or the push-pull signal generated by said push-pull signal generation circuit in response to modulation of the recording light beam, to thereby suppress a level variation of the push-pull signal caused by the modulation of the recording light beam.

2. (Amended) An optical disk recording apparatus as claimed in claim 1 wherein said gain variation circuit varies the gain of the reflected-light detection signal between a mark forming section and a blank forming section of the recording signal or the push-pull signal between a mark forming section and a blank forming section of the recording signal.

3. (Amended) An optical disk recording apparatus for recording information onto an optical disk having a wobbled recording track by irradiation of a recording light

beam having power modulated in accordance with a recording signal, said optical disk recording apparatus comprising a push-pull signal processing circuit including:

a push-pull signal generation circuit arranged to generate a push-pull signal based on a reflected-light detection signal representative of a reflection of the recording light beam off the optical disk; and

a gain variation circuit arranged to vary gain of either the reflected-light detection signal or the push-pull signal generated by said push-pull signal generation circuit in response to modulation of the recording light beam, to thereby suppress a level variation of the push-pull signal caused by the modulation of the recording light beam,

wherein said gain variation circuit varies the gain of the reflected-light detection signal or the push-pull signal between a mark forming section and a blank forming section of the recording signal, and said gain variation circuit varies the gain, in response to the mark forming section of the recording signal, in accordance with a time-axial length of the mark forming section.

6. (Amended) An optical disk recording apparatus for recording information onto an optical disk having a wobbled recording track by irradiation of a recording light beam having power modulated in accordance with a recording signal, said optical disk recording apparatus comprising a push-pull signal processing circuit including:

a push-pull signal generation circuit arranged to generate a push-pull signal based on a reflected-light detection signal representative of a reflection of the recording light beam off the optical disk;

a gain variation circuit arranged to vary gain of either the reflected-light detection signal or the push-pull signal generated by said push-pull signal generation circuit in response to modulation of the recording light beam, to thereby suppress a level variation of the push-pull signal caused by the modulation of the recording light beam; and

a pre-pit detection circuit including

a comparator arranged to compare an output signal of said push-pull signal processing circuit with a predetermined threshold value for detection of a pre-pit formed in the optical disk,

a first peak value detection circuit arranged to detect a peak value of the output signal of said push-pull signal processing circuit,

a filter circuit arranged to extract a wobble signal component out of the output signal of said push-pull signal processing circuit,

a second peak value detection circuit arranged to detect a peak value of an output signal of said filter circuit, and

a threshold value setting circuit arranged to set, as the threshold value, an optionally-selected value between the peak value detected by said first peak value detection circuit and the peak value detected by said second peak value detection circuit.

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